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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/364,527	07/30/1999	ERIC HORVITZ	1018.025US1	9577

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AMIN & TUROCY, LLP
24TH FLOOR, NATIONAL CITY CENTER
1900 EAST NINTH STREET
CLEVELAND, OH 44114

EXAMINER

SINGH, RACHNA

ART UNIT PAPER NUMBER

2176

DATE MAILED: 12/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/364,527

Applicant(s)

HORVITZ, ERIC

Examiner

Rachna Singh

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: application, filed 07/30/99;
2. Claims 1-35 are pending in the case. Claims 1, 14, 22, and 30 are independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-7, 13, 22-23, 25, 30-32, and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen, "Learning Rules that Classify E-Mail", 1996 (as disclosed at <http://www-2.cs.cmu.edu/~wcohen/pubs-t.html>).

In reference to Independent claim 1, Cohen teaches using text classifiers for filtering and filing e-mail messages. Cohen teaches prioritizing unread mail using a text classifier. Using classification rules, text categorization algorithms are used to prioritize text. Compare to ***"receiving a text; generating a priority of the text based on a text classifier; and, outputting the priority"***. See page 1-3 and page 5. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a text classifier in generating priorities of the text as it was well known in the art as taught by Cohen.

In reference to claim 2, Cohen teaches a method in which the text comprises receiving an email. See pages 1-3.

In reference to claim 3, Cohen discloses the use of a Bayseian text classifier.
See page 1, column 2 and page 3.

In reference to claims 5 and 13, Cohen teaches training text classifiers. See page 2, *Learning Algorithms*. Cohen teaches the use of training data and training sets.

In reference to claim 6, Cohen discloses using the training of algorithms as a means to determine the value of a particular word. See page 2.

In reference to claim 7, Cohen teaches using the categories generated by the text classifier as a means for filtering or prioritizing unread email. The messages are automatically archived according to the classification results. See page 5.

Claims 22-23 are rejected under the same rationale used in claims 1 and 2 respectively above.

Claim 25 is rejected under the same rationale used in claim 6 above.

Claims 30-32 are rejected under the same rationale used in claims 1-3 respectively above.

Claim 34 is rejected under the same rationale used in claim 7 above.

In reference to claim 35, it is notoriously well-known in the art to utilize a computer program to be executed by a processor. The rest of claim 35 is rejejected under the rationale used in claim 1 above.

5. Claims 8, 9-12, and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen, "Learning Rules that Classify E-Mail", 1996 (as disclosed at <http://www-2.cs.cmu.edu/~wcohen/pubs-t.html>) in view of Lewis, "Evaluating and Optimizing Autonomous Text Classification Systems", 1995 ACM.

In reference to claim 8, Lewis teaches a system in which outputting the rank or priority of a document comprises the step of alerting the user based on the priority. See page 246.

In reference to claim 9, Lewis discloses a text categorization system determines the cost of a document and ranks the retrieval of the system. The user is alerted when text considered to be relevant appears. The system determines the effectiveness of reviewing a document using a text classifier. See pages 246-249. Compare to ***“determining expected loss of non-review. . .determining an expected cost of alerting. . .alerting user. . .the expected cost.”*** It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cohen’s text classification for prioritizing text with Lewis’s text classification for alerting user since both are of analogous art in the field of text classification for prioritization. It was well known to prioritize text according to a text classifier and to alert the user of the effectiveness of viewing the text according to the text classifier. See abstract of Lewis in which he discusses text retrieval and ranking and alerts.

In reference to claim 10, Lewis teaches determining the errors of commission and the errors of omission. Lewis further discloses estimating the future effectiveness of a classifier’s decisions. See page 247. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cohen’s text classification for prioritizing text with Lewis’s text classification for alerting user since both are of analogous art in the field of text classification for prioritization. It was well known to prioritize text according to a text classifier and to alert the user of the effectiveness of

viewing the text according to the text classifier. See abstract of Lewis in which he discusses text retrieval and ranking and alerts.

In reference to claim 11, Lewis teaches determining the errors of omission at present time. See page 247. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cohen's text classification for prioritizing text with Lewis's text classification for alerting user since both are of analogous art in the field of text classification for prioritization. It was well known to prioritize text according to a text classifier and to alert the user of the effectiveness of viewing the text according to the text classifier. See abstract of Lewis in which he discusses text retrieval and ranking and alerts.

In reference to claim 12, Lewis teaches an agent program which tracks text streams (newsgroups) when alerting the user of a relevant message. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cohen's text classification for prioritizing text with Lewis's text classification for alerting user since both are of analogous art in the field of text classification for prioritization. It was well known to prioritize text according to a text classifier and to alert the user of the effectiveness of viewing the text according to the text classifier. See abstract of Lewis in which he discusses text retrieval and ranking and alerts.

Claims 26-29 are rejected under the same rationale used in claims 9-12 respectively above.

6. Claims 4, 14-17, 24, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen, "Learning Rules that Classify E-Mail", 1996 (as disclosed at

<http://www-2.cs.cmu.edu/~wcohen/pubs-t.html>) in view of Platt, US Patent 6,327,581, 12/4/01 (filed 4/6/98).

In reference to claim 4, Cohen does not disclose the text classifier comprising a support-vector machine classifier; however, Platt teaches a method of building a support-vector machine based classifier. Since it was well known in the art at the time of the invention to utilize a support vector machine classifier, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a text classifier for prioritizing text using a support-vector machine classifier.

Claims 24 and 33 are rejected under the same rationale used in claims 3 and 4 above.

In reference to claim 14, Cohen teaches using text classifiers for filtering and filing e-mail messages. Cohen teaches prioritizing unread mail using a text classifier. Using classification rules, text categorization algorithms are used to prioritize text. Compare to ***“receiving a text; generating a priority of the text based on a text classifier; and, outputting the priority”***. See page 1-3 and page 5. Cohen does not disclose the text classifier comprising a support-vector machine classifier; however, Platt teaches a method of building a support-vector machine based classifier. Since it was well known in the art at the time of the invention to utilize a support vector machine classifier, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a text classifier for prioritizing text using a support-vector machine classifier.

In reference to claim 15, Cohen teaches training text classifiers. See page 2, *Learning Algorithms*. Cohen teaches the use of training data and training sets.

In reference to claim 16, Cohen discloses using the training of algorithms as a means to determine the value of a particular word. See page 2.

In reference to claim 17, Cohen teaches using the categories generated by the text classifier as a means for filtering or prioritizing unread email. The messages are automatically archived according to the classification results. See page 5.

7. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen, "Learning Rules that Classify E-Mail", 1996 (as disclosed at <http://www-2.cs.cmu.edu/~wcohen/pubs-t.html>) in view of Platt, US Patent 6,327,581, 12/4/01 (filed 4/6/98), as applied to claim 14 above, and further in view of Lewis, "Evaluating and Optimizing Autonomous Text Classification Systems", 1995 ACM.

In reference to claim 18, Platt and Cohen do not disclose alerting the user of the priority; however, Lewis discloses a text categorization system determines the cost of a document and ranks the retrieval of the system. The user is alerted when text considered to be relevant appears. The system determines the effectiveness of reviewing a document using a text classifier. See pages 246-249. Compare to ***"determining expected loss of non-review. . .determining an expected cost of alerting. . .alerting user. . .the expected cost."*** It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cohen's text classification for prioritizing text with Lewis's text classification for alerting user since both are of analogous art in the field of text classification for prioritization. It was well known to

prioritize text according to a text classifier and to alert the user of the effectiveness of viewing the text according to the text classifier. See abstract of Lewis in which he discusses text retrieval and ranking and alerts.

In reference to claim 19, Lewis teaches determining the errors of commission and the errors of omission. Lewis further discloses estimating the future effectiveness of a classifier's decisions. See page 247. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cohen's text classification for prioritizing text with Lewis's text classification for alerting user since both are of analogous art in the field of text classification for prioritization. It was well known to prioritize text according to a text classifier and to alert the user of the effectiveness of viewing the text according to the text classifier. See abstract of Lewis in which he discusses text retrieval and ranking and alerts.

In reference to claim 20, Lewis teaches determining the errors of omission at present time. See page 247. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cohen's text classification for prioritizing text with Lewis's text classification for alerting user since both are of analogous art in the field of text classification for prioritization. It was well known to prioritize text according to a text classifier and to alert the user of the effectiveness of viewing the text according to the text classifier. See abstract of Lewis in which he discusses text retrieval and ranking and alerts.

In reference to claim 21, Lewis teaches an agent program which tracks text streams (newsgroups) when alerting the user of a relevant message. It would have

been obvious to one of ordinary skill in the art at the time of the invention to modify Cohen's text classification for prioritizing text with Lewis's text classification for alerting user since both are of analogous art in the field of text classification for prioritization. It was well known to prioritize text according to a text classifier and to alert the user of the effectiveness of viewing the text according to the text classifier. See abstract of Lewis in which he discusses text retrieval and ranking and alerts.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Angotti et al. US 6,182,059

Shuman US 6,424,995

Henderson et al. US 6,185,603

Takahashi et al. US 6,442,589

Shaw et al. US 6,282,565

Johnson et al. US 5,694,616

Wong US 5,974,465

Scannell et al. US 5,377,354

-Lewis, David, "Training Algorithms for Linear Text Classifiers", AT&T Laboratories, 1996

-Apte, Chidanand, Fred Damerau, and Sholom M. Weiss, "Automated Learning of Decision Rules for Text Categorization", 1994 ACM.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachna Singh at 703.305.1952. The examiner can normally be reached on Monday-Friday from 8:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached at 703.308.5186.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 703.305.3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

After-Final	703.746.7238
Official	703.746.7239
Non-Official/Draft	703.746.7240

Hand-Delivered responses should be brought to Crystal park II, 2121 Crystal Drive, Arlington VA., Sixth Floor (Receptionist).

Rachna Singh
December 20, 2002


JOSEPH H. FEILD
PRIMARY EXAMINER